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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/174,042	10/16/1998	JURGEN HIRATH	ZTP-97-P-413	5077

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EXAMINER
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WILKENS, JANET MARIE

ART UNIT	PAPER NUMBER
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3637

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/174,042

Applicant(s)

HIRATH ET AL.

Examiner

Janet M. Wilkens

Art Unit

3637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

Claims 1-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aue in view of Schmidberger (German reference 1, 004,207). Aue teaches a refrigerator with a heat insulated wall (see Fig. 2) comprising: a connecting profile (Fig. 3) , an evacuable heat insulating material (15) and two outer metal covering layers (12,14; see cross hatching for metal material determination). The connecting profile is connected to the layers, running along contours thereof and forming a tight seal there between (see abstract). For claim 1, Aue fails to teach a tube/stub with flatten outer flanges on the ends thereof between the outer covering layers of the wall.

Schmidberger teaches a refrigerator (Fig. 1) having a tube/stub (30) with integral flatten outer flanges located between its outer covering layers (12,10). Welds are located between the flanges and layers. The tube, along with openings in the layers, provide a conduit for wires, for a light, etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the wall/refrigerator of Aue by adding a tube between its outer layers, as well as corresponding openings in the walls thereof, such as is taught by Schmidberger, for the advantages stated above. Note: the product by process limitations have been given no weight, since the claims presently in the application are article claims. Therefore, that the layers are connected in a vacuum-tight manner, that the space between the layers is evacuated, that the tube is fixed in a vacuum-tight manner to the layers, and that the flatten portions of the tubes are attached to the layers via a beam-welding process are irrelevant. Only the final product is given weight in article claims. Furthermore, it should be understood that the

Schmidberger reference is being used only for its specific conduit teaching, other features of the Schmidberger refrigerator not forming a part of the combination.

For claims 8-10, Aue in view of Schmidberger fails to specifically teach that the layers and tube are made out of steel. It would have been an obvious design consideration to one of ordinary skill in the art at the time of the invention to modify the wall and tube of Aue in view of Schmidberger by making the layers and tube out of any of a number of different materials, including steel, depending on the desired need of the person constructing the refrigerator/wall/tube, e.g. depending on certain properties desired/required for the wall/tube, depending on the materials readily available, depending on economic considerations, etc. For claim 10, to connect the metal tube and layers, welds would be obvious to use there between.

For claims 11 and 12, Aue in view of Schmidberger fails to specifically teach that the layers and tube flanges have similar thicknesses. It would have been an obvious design consideration to one of ordinary skill in the art at the time of the invention to have the thicknesses of the layers and flanges similar, for strength purposes, for economic reasons, e.g. one type of metal sheet could be used to form both structures, etc.

Claims 1-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese reference 2-136683 in view of Schmidberger (German reference 1, 004,207). The Japanese reference teaches a refrigerator with a heat insulated wall (see Fig. 5) comprising: a connecting profile (18), an evacuable heat insulating material (10) and two outer metal covering layers (8,9; see cross hatching for metal material determination). The connecting profile is connected to the layers, running along

contours thereof and forming an "air- tight" seal there between (see abstract). For claim 1, the Japanese reference fails to teach a tube/stub with flatten outer flanges on the ends thereof between the outer covering layers of the wall. Schmidberger teaches a refrigerator (Fig. 1) having a tube/stub (30) with integral flatten outer flanges located between its outer covering layers (12,10). Welds are located between the flanges and layers. The tube, along with openings in the layers, provide a conduit for wires, for a light, etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the wall/refrigerator of the Japanese reference by adding a tube between its outer layers, as well as corresponding openings in the walls thereof, such as is taught by Schmidberger, for the advantages stated above.

For claims 8-10, the Japanese reference in view of Schmidberger fails to specifically teach that the layers and tube are made out of steel. It would have been an obvious design consideration to one of ordinary skill in the art at the time of the invention to modify the wall and tube of the Japanese reference in view of Schmidberger by making the layers and tube out of any of a number of different materials, including steel, depending on the desired need of the person constructing the refrigerator/wall/tube, e.g. depending on certain properties desired/required for the wall/tube, depending on the materials readily available, depending on economic considerations, etc. For claim 10, to connect the metal tube and layers, welds would be obvious to use there between.

For claims 11 and 12, the Japanese reference in view of Schmidberger fails to specifically teach that the layers and tube flanges have similar thicknesses. It would

have been an obvious design consideration to one of ordinary skill in the art at the time of the invention to have the thicknesses of the layers and flanges similar, for strength purposes, for economic reasons, e.g. one type of metal sheet could be used to form both structures, etc.

### ***Response to Arguments***

Addressing the arguments concerning the product by process limitations: the examiner contends that the limitations pointed out, i.e. that the layers are connected in a vacuum-tight manner, that the space between the layers is evacuated, that the tube is fixed in a vacuum-tight manner to the layers, and that the flatten portions of the tubes are attached to the layers via a beam-welding process are product by process limitations. These limitations are concerned with the manner of constructing of the wall and do not form features of the final product. First, the phrase "connected... in a vacuum-tight manner" describes how the layers/profile and layers/portions are connected, no structure for doing the connecting is disclosed. Furthermore, nowhere in the specification is this "manner" further defined. Therefore, a broad interpretation can be given to this phrase, i.e. members connected and forming a "tight seal" could be considered as being connected in a "vacuum-tight manner". For example, in both the Aue and Shuko references, the connecting profiles extend along contours of the layers and form a "tight seal" there between, thereby, inherently being capable of meeting this "manner" as best understood/disclosed by applicant. Second, the phrase "space to be evacuated" not only poses the question "is the space evacuated or not?" but also

appears to be an intermediate step. As stated above, only the final product is given weight in article claims. In this case, in the final product, foam occupies the space. Furthermore, any type of insulated material, including foaming polyurethane plastic insulation, can be evacuated from inside its containing walls (e.g., pulling it out by hand would "evacuate" the material). Also, nowhere in the specification is this process further defined. Third, the phrase "attached...via a beam-welding process" (the word process emphasized) clearly is a limitation which defines the process which connects features of the product. Furthermore, as stated above, using welds, including beam welding, to attach features together is well known in the art. Finally, it is agreed that a product by process limitation is a limitation directed to the process for fabrication of an article and it is argued that this is the case in this situation. The limitations stated above being given weight only in method type claims.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

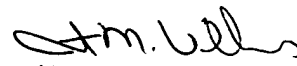
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet M. Wilkens whose telephone number is (703) 308-2204. The examiner can normally be reached on Monday-Thursday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wilkens  
March 21, 2004

  
JANET M. WILKENS  
PRIMARY EXAMINER  
Art Unit 3637